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## Experts' request to the Spanish Government: move Spain towards complete lockdown

We would like to express our concern about the limited capacity of actions taken by the Spanish Government to successfully control the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) outbreak and end the exponential growth phase of new cases. The measures taken so far, consisting primarily of partial restriction mobility, are in the right direction, although some researchers have warned about the pressure placed on the building blocks of the health system.<sup>1</sup>

Given that the actual extent of an epidemic can only be assessed retrospectively, governments and policy makers are forced to make decisions on the basis of mathematical models of other diseases and previous experiences by other countries taking different actions.<sup>2</sup> In Spain, various models simulating the spread of infection and using different assumptions converge in a landscape of a high number of new cases within the next few weeks. Simulations have been done using the URV and UNIZAR models to predict the progression of the number of patients who will require admission into hospital intensive care units because of coronavirus disease 2019 (COVID-19) in three scenarios (appendix): scenario 1, no mobility restrictions; scenario 2, partial restriction of mobility (ie, movement to the workplace allowed for 30% of people); and scenario 3, complete restriction of mobility (ie, no workplace mobility allowed except for essential services).

The model suggests that the actions taken to date, consistent with scenario 2, will be insufficient to prevent hospitals and intensive care units from being overwhelmed over the coming weeks. The foreseen collapse of the health system, along with the age distribution of the Spanish population

(ie, 18% of people aged  $\geq 65$  years), suggests a potentially high mortality rate associated with COVID-19 in the country. According to our models, the current state is associated with a very high risk of saturation of our health system, which is expected to last from March 26 to April 24, 2020 (appendix). Therefore, we urge the Spanish Government to implement, as swiftly as possible, more drastic measures to minimise the impact of the pandemic on the Spanish population.

As a reference framework (to be adjusted, if applicable), we suggest the following measures. Establish regional categories according to the number of cases per 100 000 population and implement a package of multiple interventions that fit each category (appendix). For example, type A areas ( $\geq 100$  cases per  $10^5$  inhabitants in the past 7 days) implement a complete shutdown of the region and citizen lockdown, except for essential services (eg, hospitals, health care, and research centres) for a minimum period of 15–21 days. This category includes, as of March 26, 2020, the Autonomous Communities of La Rioja (166 cases per  $10^5$  inhabitants), Madrid (155), Navarra (142), Basque Country (124), Castilla-La Mancha (127), Catalonia (115), and Castilla y León (109).

Type B areas ( $< 100$  cases per  $10^5$  inhabitants), which include all areas that are not considered type A, apply partial confinement (30% of work activity and 25% of internal movement allowed) and close monitoring of the growth rate of new infections. If the number of cases in a type B area increases sharply, it becomes a type A area. All non-essential inter-regional land, sea, and air transport must be totally interrupted for at least 15 days.

To implement combined non-pharmacological interventions for several weeks, including complete restriction of movement, work interruption, and social distancing, banning all travel and all non-basic economic activities, together with the intensified use of diagnostic tests in suspected

cases has proven to yield good results.<sup>3</sup> Also, there is an urgent need to establish a purchasing and supply channel for personal protective equipment, which is currently insufficient for health personnel who are highly exposed to and prone to contagion. The recent finding on the spreading capacity of SARS-CoV-2 by contamination of eyelashes and hair reinforces this need.<sup>4</sup>

The proposed suppression policies will not mean the end of COVID-19 in Spain in the initial 3–4 weeks; therefore, the development of strategies to sustain the gains is critical. A key lesson from the Asian experience is the need to create a robust surveillance system capable of collecting and reporting epidemiological data down to the individual or household level.<sup>5</sup> There are two pillars for the development of such a system: (1) the development and implementation of a universal mobile application for self-reporting of suspected COVID-19 symptoms as well as apps to support contact tracing efforts (eg, TraceTogether mobile app; Singapore); and (2) increased diagnostic capacity to test all individuals with symptoms for early isolation. The identification of an increase in the number of cases in an area would trigger quick remedial measures like the implementation of early and targeted suppression actions.

Importantly, we beg the Spanish Government to facilitate the access of the scientific community to outbreak data, thus providing artificial intelligence support in simulation and modelling, and to create core support groups that coordinate a comprehensive, objective, and transparent scientific response.

We declare no competing interests.

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See Online for appendix

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- 1 Legido-Quigley H, Mateos-García JT, Campos VR, Gea-Sánchez M, Muntaner C, McKee M. The resilience of the Spanish health system against the COVID-19 pandemic. *Lancet Public Health* 2020; published online March 18. [https://doi.org/10.1016/S2468-2667\(20\)30060-8](https://doi.org/10.1016/S2468-2667(20)30060-8).
- 2 European Centre for Disease Prevention and Control. Rapid risk assessment. Novel coronavirus disease 2019 (COVID-19) pandemic: increased transmission in the EU/EEA and the UK—sixth update. March 12, 2020. <https://www.ecdc.europa.eu/sites/default/files/documents/RRA-sixth-update-Outbreak-of-novel-coronavirus-disease-2019-COVID-19.pdf> (accessed March 26, 2020).
- 3 Li R, Pei S, Chen B, et al. Substantial undocumented infection facilitates the rapid dissemination of novel coronavirus (COVID-19). *medRxiv* 2020; published online March 16. DOI:2020.02.14.20023127 (preprint).
- 4 Yan Y, Chen H, Chen L, et al. Consensus of Chinese experts on protection of skin and mucous membrane barrier for health professions fighting against coronavirus disease 2019. *Chinese J Dermatology* 2020; published online March 13. DOI:10.1111/dth.13310.
- 5 COVID-19 National Emergency Response Center, Epidemiology & Case Management Team, Korea Centers for Disease Control & Prevention. Contact transmission of COVID-19 in South Korea: novel investigation techniques for tracing contacts. *Osong Public Heal Res Perspect* 2020; **11**: 60–63.



## Racism and discrimination in COVID-19 responses

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Outbreaks create fear, and fear is a key ingredient for racism and xenophobia to thrive. The coronavirus disease 2019 (COVID-19) pandemic has uncovered social and political fractures within communities, with racialised and discriminatory responses to fear, disproportionately affecting marginalised groups.

Throughout history, infectious diseases have been associated with othering.<sup>1</sup> Following the spread of COVID-19 from Wuhan, China, discrimination towards Chinese people has increased. This includes individual acts of microaggression or violence, to collective forms, for example Chinese people being barred from

establishments.<sup>2</sup> Rather than being an equaliser, given its ability to affect anyone, COVID-19 policy responses have disproportionately affected people of colour and migrants—people who are over-represented in lower socioeconomic groups, have limited health-care access, or work in precarious jobs. This is especially so in resource-poor settings that lack forms of social protection. Self-isolation is often not possible, leading to higher risk of viral spread. Ethnic minority groups are also at greater risk because of comorbidities—for example, high rates of hypertension in Black populations<sup>3</sup> and diabetes in south Asians.<sup>4</sup> Furthermore, migrants, particularly those without documents, avoid hospitals for fear of identification and reporting, ultimately presenting late with potentially more advanced disease.

Acts of discrimination occur within social, political, and historical contexts. Political leaders have misappropriated the COVID-19 crisis to reinforce racial discrimination, doubling down, for example, on border policies and conflating public health restrictions with antimigrant rhetoric. Matteo Salvini, former Deputy Prime Minister of Italy, wrongly linked COVID-19 to African asylum seekers, calling for border closures.<sup>5</sup> Similarly, President Donald Trump has referred to severe acute respiratory syndrome coronavirus 2 as the Chinese virus,<sup>6</sup> linking the health threat to foreign policy and trade negotiations.

Current emergency powers need to be carefully considered for longer-term consequences. Policies necessary to control populations (eg, restriction of movement, or surveillance) might be misappropriated, and marginalised groups have been traditionally targeted. Systems must be put in place to prevent adverse health outcomes from such policies.

The strength of a health system is inseparable from broader social systems that surround it. Epidemics place increased demands on scarce resources and enormous stress on

social and economic systems. Health protection relies not only on a well functioning health system with universal coverage, but also on social inclusion, justice, and solidarity. In the absence of these factors, inequalities are magnified and scapegoating persists, with discrimination remaining long after. Division and fear of others will lead to worse outcomes for all.

We declare no competing interests.

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- 1 White AIR. Historical linkages: epidemic threat, economic risk, and xenophobia. *Lancet* 2020; published online March 27. [https://doi.org/10.1016/S0140-6736\(20\)30737-6](https://doi.org/10.1016/S0140-6736(20)30737-6).
- 2 Chung RY-N, Li MM. Anti-Chinese sentiment during the 2019-nCoV outbreak. *Lancet* 2020; **395**: 686–87.
- 3 Go AS, Mozaffarian D, Roger VL, et al. Executive summary: heart disease and stroke statistics—2014 update: a report from the American Heart Association. *Circulation* 2014; **129**: 399–410.
- 4 Unnikrishnan R, Gupta PK, Mohan V. Diabetes in south Asians: phenotype, clinical presentation, and natural history. *Curr Diab Rep* 2018; **18**: 30.
- 5 Tondo L. Salvini attacks Italy PM over coronavirus and links to rescue ship. Feb 24, 2020. <https://www.theguardian.com/world/2020/feb/24/salvini-attacks-italy-pm-over-coronavirus-and-links-to-rescue-ship> (accessed March 30, 2020).
- 6 @realDonaldTrump. March 16, 2020. <https://twitter.com/realDonaldTrump/status/123968585209316964?s=20> (accessed March 31, 2020).

## Department of Error

Mitjà O, Arenas À, Rodó X, Tobias A, Brew J, Benlloch JM. Experts' request to the Spanish Government: move Spain towards complete lockdown. *Lancet* 2020; **395**: 1193–94—The appendix of this Correspondence has been corrected as of March 30, 2020.

Cluver L, Lachman JM, Sherr L, et al. Parenting in a time of COVID-19. *Lancet* 2020; **395**: e64—In this Correspondence, Gretchen Bachman's affiliation should have been "Department of Orphans and Vulnerable Children, United States Agency for International Development, Washington, DC, USA". This correction has been made to the online version as of April 9, 2020.